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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,727	01/20/2004	Andrew J. Ouderkirk	59518US002	5615
32692	7590	11/30/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			WILLIAMS, JOSEPH L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/762,727	Applicant(s) OUDERKIRK ET AL.	
	Examiner Joseph L. Williams	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/29/04 & 8/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (US 6,155,699), of record by Applicant.

Regarding claim 1, Miller ('699) teaches in figures 2 and 3 and the corresponding column and line numbers, an LED package (26) comprising: an LED (12) that emits excitation light; an optically transparent body (22 and 28); a layer of phosphor material (36) positioned to receive the excitation light and disposed on or in the optically transparent body, the phosphor material emitting visible light when illuminated with the excitation light; and a reflective polarizer layer (30) disposed on or in the optically transparent body positioned to receive the emitted light.

Regarding claim 2, Miller ('699) teaches the LED (12) is disposed within the optically transparent body (22 and 28).

Regarding claim 4, Miller ('699) teaches the reflective polarizer layer (30) is disposed on the optically transparent body (28).

Regarding claim 5, Miller ('699) teaches the reflective polarizer layer is disposed in the optically transparent body (22).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 6,155,699), of record by Applicant.

Regarding claim 3, Miller ('699) teaches all of the claimed limitations except for the LED being disposed adjacent to the optically transparent body.

However, the Applicant has not disclosed any criticality to the position of the LED, and has also disclosed that the LED can be positioned within the transparent body. Therefore it is the opinion of the Examiner that the position of the LED is an obvious choice in design.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 6,155,699) in view of Vriens et al. (US 5,813,753), both of record by Applicant.

Regarding claim 6, Miller ('699) teaches all of the claimed limitations except for a short pass filter disposed between the LED and the layer of phosphor material.

Further regarding claim 6, Vriens ('753) teaches in figure 4 an LED package comprised of, in part, a short wave pass filter disposed between the LED and the phosphor layer for the purpose of improving the emitted light intensity.

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Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the short wave pass filter of Vriens in the LED package of Miller for the purpose of improving the emitted light intensity.

Regarding claim 7, Miller ('699) teaches all of the claimed limitations except for a long pass filter disposed between the LED and the layer of phosphor material.

Further regarding claim 6, Vriens ('753) teaches in figure 3 an LED package comprised of, in part, a short wave pass filter disposed between the LED and the phosphor layer for the purpose of enhancing the transmission of the visible light and better UV protection.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the long wave pass filter of Vriens in the LED package of Miller for the purpose of enhancing the transmission of the visible light and better UV protection.

Regarding claim 8, Vriens ('753) teaches in column 6, lines 14-29 (embodiment 7), the use of a short pass and long pass filter together in a LED package.

The reason for combining is the same as for claim 6 and 7 above.

Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 6,155,699) in view of Vriens et al. (US 5,813,753), as applied to claims 6 and 7 above, in further view of Fleming et al. (US 6,172,810) all of record by Applicant.

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Regarding claims 9 and 10, Miller in view of Vriens teaches all of the claimed limitations except for the short or long pass reflector being made of polymeric material.

Further regarding claims ^{and 10 JW 11/24/05} 9A Fleming ('810) teaches in column 1, line 60 through column 2, line 37, the use of polymeric materials, which are more resistant to water, acids, bases, and corrosion, for a reflector or filter layer for the purpose of improving the lifetime of the display.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polymeric material of Fleming for the filter of the LED package of Miller in view of Vriens for the purpose of improving the lifetime of the display.

Regarding claims 11 and 12, Fleming ('810) teaches that the reflectors can be non-planar.

The reason for combining is the same as for claim 9 above.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 6,155,699), of record by Applicant, in view of Kotchick (US 6,894,821).

Regarding claim 13, Miller ('699) teaches all of the claimed limitations except for the reflective polarizer being comprised of cholesteric material.

Further regarding claim 13, Kotchick ('821) teaches a display comprised of, in part, a filter made of cholesteric material for the purpose of improving the ambient brightness of the display.

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Hence it would have been obvious to one of ordinary skill in the art the time the invention was made to use the filter made of cholesteric material of Kotchick in the display of Miller for the purpose of improving the ambient brightness of the display.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 6,155,699) in view of Fleming et al. (US 6,172,810), both of record by Applicant.

Regarding claims 14 and 15, Miller teaches all of the claimed limitations except for the reflective polarizer being made of polymeric material.

Further regarding claims 14 and 15, Fleming ('810) teaches in column 1, line 60 through column 2, line 37, the use of polymeric materials, which or more resistant to water, acids, bases, and corrosion, for a reflector or filter layer for the purpose of improving the lifetime of the display.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polymeric material of Fleming for the filter of the LED package of Miller in view of Vriens for the purpose of improving the lifetime of the display.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joseph L. Williams
Primary Examiner
Art Unit 2879